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An Open Education Kindergarten Curriculum Guide

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UNIVERSITY OF NORTH FLORIDA
COLLEGE OF EDUCATION

AN OPEN EDUCATION
KINDERGARTEN CURRICULUM GUIDE

By
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A thesis submitted to the Dept. of
Elementary and Secondary Education in
partial fulfillment of the requirements
for the degree Master of Education

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AN OPEN EDUCATION
KINDERGARTEN CURRICULUM GUIDE

Dianne Tyus Howard
University of North Florida, 1977

The purpose of this project was to develop an open education kindergarten curriculum guide utilizing learning centers. This curriculum guide consists of a discussion of specific aspects of implementation of learning centers and a detailed analysis of twelve learning centers.

Whether learning centers are implemented gradually, moderately, or totally, the following factors are essential to consider prior to implementation: physical environment, materials, classroom management, evaluation and record keeping, and parental involvement.

The following learning centers are discussed in-depth with respect to goals, objectives, enabling activities, and materials and supplies: math, science, language arts, social studies, art, music, blockbuilding, dramatic play, sand and water, woodworking, cooking and sewing, and movement.

Successful implementation of learning centers in kindergarten appears to be a result of the implementing teacher's attitude toward open education. The attitude of openness is vital in order to successfully develop and implement learning centers.

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CHAPTER I

INTRODUCTION

Due to increased research and federal funding, which was stimulated by the advent of Project Head Start a decade ago, some major trends in early childhood education have evolved. A review of the relevant research indicated that current trends in early childhood education involve extending public school to include kindergartens, nursery schools, and child development centers (Hess, 1972; and Frost, 1976). Furthermore, Frost (1976) suggested that the primary emphasis is on providing public kindergartens for children five years of age.

In response to this trend to include kindergarten as a part of the public school system, a variety of instructional approaches have been developed and implemented. The literature revealed that the most prevalent approach to teaching kindergarten children involves the use of learning centers where the children perform tasks in a specified area of the classroom either independently or in a small group with materials and media relevant to a structured learning activity (Grand and Gold, 1975).

The learning center approach is based on the concept of open education which Stephens (1974, p. 27) defined as "an approach to education that is open to change, to new ideas, to curriculum, to scheduling, to use of space, to honest expressions of feeling between teacher and pupil and between pupil and pupil, and open to children's participation in significant decision-making in the classroom."

Although the literature revealed information concerning both open education and learning centers, no research was found which included a plan of instruction or curriculum guide for implementing open education in kindergarten. It was with this lack of literature that this project was concerned.

The purpose of this project, therefore, was to develop an open education kindergarten curriculum guide utilizing learning centers.

Rationale

The justification for developing an open education kindergarten curriculum guide can be understood in terms of some basic assumptions underlying the concept of open education. The first assumption is that learning takes place as a result of interaction with the environment. Studies consistently support the belief that intellectual development is affected by the environment (Hunt, 1961; and Bloom, 1964). Spodek (1972) contends that verbalizations

concerning relationships among people, places, and things are necessary for concept formation. Open education, therefore, provides an environment which is rich with a variety of concrete materials for children to explore and discover (Day, 1975).

Another assumption underlying open education is that there is no single way to master a skill. Spodek (1972) and Stephens (1974) concurred that some children learn better aurally, others visually, and still others through kinesthetic methods. Open education recognizes this need for multiple approaches to learning by emphasizing the process or way of learning instead of the content or subject matter to be learned (Blitz, 1973).

A third assumption is that learning requires that material be appropriate to the child's level of development; thus, open education provides diagnostic-prescriptive teaching by first evaluating the ability level of children and then prescribing appropriate learning activities (Hess and Croft 1972).

A fourth assumption upon which open education is based is that learning requires the active participation of the child. In other words, learning is done by the child, rather than to him (Stephens, 1974).

The last assumption states that children are competent, eager to learn, and trustworthy. When viewed as competent and trustworthy, children become directors of

learning instead of receivers. Piaget indicated that children are inately motivated to learn by solving problems (Spodek, 1972). Open education, therefore, provides opportunities for inquiry-learning, whereby children learn how to solve problems.

Decision making opportunities are created as a result of these assumptions. In open education the teacher and children are jointly involved in the decision making process.

Significance of the Project

The current emphasis upon early childhood education is greater than ever before (Frost, 1976). Educators of young children are expected to promote development of the whole child: socially, intellectually, emotionally, and physically; consequently, examination of the literature revealed a need for the development of an open education kindergarten curriculum guide.

Since 1930 two national emergencies- the depression and the war period- have extended the demand for schools for young children. During the thirties and forties, early childhood education was strongly influenced by Dewey's Progressive Movement which emphasized learning by doing things in real life situations; in contrast, the primary school was skill and content oriented. As a result of

Russian technological competition and the tendency to compare early childhood education with the primary school, a movement evolved to prepare young children for primary school by emphasizing readiness for learning to read (Seefeldt, 1976).

Also, during this time there was concern for developing tests and norms in the establishment of the notion of predeterminism, which assumed that child development was determined by heredity. The developmental norms produced by Gesell (1948) are a result of this period.

In contrast to Gesell's notion of predeterminism, during the forties and fifties research studies of humans and animals showed that life in a deprived, unresponsive environment could lead to impaired human development. Hunt's (1961) research consistently pointed to a connection between poverty and mental retardation; furthermore, it promoted the notion that intelligence is not fixed at birth, but may be altered by environmental conditions.

Public attention was directed toward the studies of Bloom (1964) in the mid-sixties. From his analysis of eight major longitudinal studies, Bloom concluded that the years between conception and age four are critical in terms of intellectual development. He also proposed that the environmental effects on intelligence appear to be greatest in the early years of development.

Frost (1976) indicated that the notion of predeterminism accounted for the failure of early childhood educators to emphasize cognitive or intellectual stimulation prior to the sixties; however, he also pointed out that Piaget's cognitive development theories are now considered important among early childhood educators in the United States.

In conclusion, there are several implications of past and present studies in early childhood education (Seefeldt, 1976). Schools for young children need to allow and encourage activity; furthermore, they need to provide children with an enriching environment. The teacher needs to introduce stimuli that are only slightly more difficult than previously assimilated concepts. Informal play and talk are important for intellectual development. Ongoing diagnosis in the early childhood classroom is necessary in order to plan for appropriate learning experiences. This project was developed in response to these implications.

Definitions of Terms

For the purpose of this project the following definitions of terms will be used:

1. Concept formation is the development of abstract ideas.
2. Curriculum includes all the planned educational activities within a school environment.

3. Curriculum guide is an instructional plan which identifies what is to be learned, proposes ways to learn, and suggests methods of assessing learning.

4. Developmental norms refer to a pattern of the sequence and manner of child development.

5. Diagnostic-prescriptive teaching is the process of evaluating interests, achievements, and abilities of children and planning appropriate learning activities which are based on this diagnosis.

6. Discovery learning is the learning which takes place without carefully planned teacher direction.

7. Individualized learning is organized instruction based on the uniqueness of each child with respect to interests, achievements, abilities, and styles of learning.

8. Inquiry learning refers to the investigation of problems.

9. Instructional approaches are methods of teaching.

10. Integrated curriculum is an instructional plan in which topics for learning are not divided into the usual subject matter categories.

11. Kindergarten is the unit of school which enrolls children who are five years of age prior to entrance to the first grade.

12. Learning center is an open area of a classroom with materials and media relevant to a structured learning activity for simultaneous use of one or more children

without direct supervision or direction of the teacher.

13. Learning strategies are those methods by which children learn.

14. Open education is an approach to learning; whereby, the learner is an active participant in the learning process and is encouraged to develop responsibility for discovery learning.

15. Predeterminism is a notion that child development is determined by heredity.

16. Teaching strategies are those methods by which teachers promote learning.

CHAPTER II

REVIEW OF LEARNING CENTER LITERATURE

In the previous chapter, some assumptions underlying the concept of open education and the significance of early childhood education were discussed. This project was concerned with development of an open education kindergarten curriculum guide utilizing learning centers. This chapter discusses literature relevant to learning centers. A discussion of open education is followed by a discussion of these aspects of learning centers: definition, purposes, characteristics, advantages and disadvantages, and roles. Approaches to implementing learning centers and suggestions for implementing them are discussed next. The chapter concludes with a discussion of roles of the teacher and children.

Open Education

Advocates of open education concurred that it is a philosophy rather than a particular teaching strategy (Horton, 1973; Charles, 1976; and Spodek, 1972). Other open educators explained this philosophy by stating that children are best prepared for adulthood if they learn

to function independently, to identify and solve their problems, and to acquire self-confidence (Blitz, 1973; Stephens, 1974; and Day, 1975).

In order to promote independence, the ability to solve problems, and self-confidence in children, open education relies upon environments which reflect the following characteristics (Marshall, 1972; Stephens, 1974; and Charles, 1976): Learning topics are integrated; that is, they are not divided into the usual subject categories. The learning environment is rich with varied materials. Scheduling is flexible. The environment is arranged into learning centers.

Considering these characteristics of open education, which include learning centers, open education appears to be an appropriate philosophy upon which to base development of a kindergarten curriculum guide.

Definition of Learning Center

Due to the varied needs and abilities of children, teachers are faced with the problem of developing a unique educational program or plan for each child. The kindergarten teacher, therefore, is responsible for creating an educational environment that will meet each child's educational needs (Frank, 1974).

J. L. Thomas (1975) indicated that an effective method of providing for individual differences among children was through the use of learning centers. He explained

that learning centers provide children with activities at varied levels of difficulty and complexity and also emphasize organized discovery learning without the direct supervision of the teacher.

Moore (1974) made similar comments about learning centers. She contended that children practice skills and develop concepts in a learning center environment which stimulates interest and creativity; likewise, children help direct their own learning within the context of diagnostic-prescriptive teaching, which is based on each child's level of diagnostic needs. In the learning center environment, the child is able to experience success in learning alone and with others; furthermore, the child is stimulated by working with other children of varied abilities and interests. In addition, Giles (1975) defined a learning center as an attractively created section of a classroom with materials and media relevant to a structured learning activity for simultaneous use by one or more children; however, in his definition, Frank (1974) included that the use of materials is without the direct supervision of the teacher.

The term, "learning center," has been confused with learning resource center and learning laboratory (J.L. Thomas, 1975). A learning resource center refers to a large central area, housing the combined contents of the school library and the media center, which is shared by teachers and children on a school-wide basis.

The learning laboratory, however, refers to a large area devoted to the study of one particular subject or topic. It serves primarily only as a source of materials used by a number of teachers, and is not organized for specific learning activities (George, 1973).

Some educators use the term learning station synonymously with learning center; however, the latter term is more commonly used by teachers (George, 1973).

Having defined learning center, the following discussion concerns the purposes of learning centers.

Purposes

A review of the literature revealed that learning centers are designed to encourage children to make choices and solve problems by providing them with secure, comfortable, and natural settings (George, 1973; Horton, 1973; Frank, 1974; J. L. Thomas, 1975; and Charles, 1976). Often learning centers are constructed with a specific set of directions for children to experience only after completing their assigned work; consequently, severely restricting the use of learning centers contradicts the essence of the learning center approach in that the child is not given the opportunity to integrate his interests and needs with classroom activities (Stephens, 1974).

J. L. Thomas (1975) suggested that the activities in a learning center not be determined by a set of directions

devised by the teacher alone. Instead, the particular circumstances and the kinds of activities the children need to experience determine directions for activities. Learning centers assume a variety of forms for a variety of purposes to provide appropriate experiences for children. They may be organized according to subjects, interests, problems, skills, or themes. Regardless of their form, learning centers constitute the total learning environment.

One purpose of a learning center is to provide a focal diagnostic and prescriptive center where the teacher and child or children can work together (George, 1973). For example, teachers assess children to determine interests and levels of achievement. On the basis of this diagnosis, teachers plan appropriate learning activities. Children direct their own learning and problem-solving activities within the realm of diagnostic-prescriptive teaching.

Another purpose of a learning center is to encourage children to become self-learners through independent study and to develop creative abilities (Horton, 1973). The learning center approach allows children to make decisions about their learning and to evaluate their own accomplishments.

Frank (1974) proposed a third purpose of learning centers; That is, to locate, gather, and organize a variety

of multi-leveled learning materials and resources for use by children as individuals and in small groups. If teachers are cognizant of children's strengths and weaknesses in a given area, they can provide materials in the center which are appropriate to the identified needs of the children; therefore, children will have available to them materials which are geared to their levels of functioning.

In summary, a learning center provides a place for a variety of activities which meet individual needs of children. The activities within a learning center cover the range from simple to difficult and from concrete to abstract.

Characteristics

Certain characteristics of learning centers have been identified by George (1973), Horton (1973), S. Kaplan, J. Kaplan, Madsen, and Gould (1973), and J. L. Thomas (1975). One characteristic is that learning centers are primarily student directed. That is, they do not require the continuous presence or supervision of the teacher when properly designed.

Another important aspect of learning centers is that they present ideas, materials, and activities on a variety of levels of difficulty in order to accommodate individual abilities of children (George, 1973). Individualization

is important for the effective and efficient learning experiences of each child. Kaplan et al. (1973) explained that individualized learning exists when the teaching and learning processes are varied according to the interests, sociometrics, learning styles, abilities, and achievements of the children.

Horton (1973) discussed a third characteristic of learning centers: that is, children achieve specific objectives which have been clearly stated. Children know the nature of enabling activities and the requirements for completing them. A clear statement of pre-assessment, objectives, enabling activities, and post-assessment allows children to move through learning centers with a minimum of teacher intervention.

Another characteristic of learning centers concerns record keeping. Charles (1976) stressed the importance of including a method of recording the participation and achievement of children in the learning centers. He suggested keeping an individual folder for each child.

In addition to record keeping, opportunities for self evaluation are included in each learning center (Dunn and Dunn, 1975). Each activity has a pre-assessment and a post-assessment, which enable children to determine deficiencies and recycle competencies not mastered.

Finally, Moore (1974) reported that independent learning and decision-making opportunities are involved in each learning center. Children choose from a variety

of objectives and how they will reach the specified objective. Day (1975) suggested that contracting with the teacher on a plan to be followed encourages independence and provides decision-making opportunities.

Advantages and Disadvantages

Horton (1973), Hostetler and Carpenter (1973), George (1973), Frank (1974), Stephens (1974), Grand and Gold (1975), and J. L. Thomas (1975) concurred on advantages of using learning centers. One advantage is the increased personalization of instruction. Individualized instruction is provided for a variety of ability levels; accordingly, children work on the level most appropriate for them and progress at their own pace.

In addition to decision-making opportunities and an individualized pace of study, learning centers facilitate development of a personalized relationship between the child and teacher (George, 1973). This approach allows the teacher more time for attention to individual needs. A one-to-one relationship is valuable for the young child's development (Spodek, 1972).

Hostetler and Carpenter (1973) stated that children benefit from small group interaction as the idea of group accomplishment replaces individual accomplishment. They also contended that peer relationships are more important for children than the individual competitive "I" concept.

A further advantage of learning centers is that numerous experiences and materials may be explored; whereas, in the traditional classroom, this is impossible (Stephens, 1974). This method effectively uses the environment by involving children in a multitude of individual and small group activities simultaneously.

Ultimate usage of materials and tools is another benefit of the learning center approach (Hostetler and Carpenter, 1973). For example, tempera painting is simplified when only three easels are used in the art center by a group of six children; furthermore, clean-up is easier because the art center is located near the sink.

George (1973) reported a sixth advantage of using learning centers; that is, this approach encourages development of self-initiated learning. J. L. Thomas (1975) further explained that decision-making opportunities encourage individual commitment to learning experiences resulting in attainment of individual goals. Therefore, skills necessary for active involvement in lifelong learning are developed.

Another advantage of the learning center approach is the ease with which it may be applied to instruction at every grade and age level (George, 1973). Learning centers may be employed from kindergarten through high school and beyond. As the age and ability of the student increase, the directions and tasks are made increasingly

more demanding.

In addition to the previously discussed advantages of learning centers, their use eliminates the need for uniform seatwork, which has been traditionally employed as a group management technique (Blitz, 1973). George (1973) explained that the seatwork strategy was focused on control, rather than on learning.

One of the most attractive benefits of learning centers, cited by Stephens (1974), is the use of paraprofessionals. Volunteers help construct learning centers, supervise center learning, keep records, and promote learning by asking questions.

Learning centers may be implemented gradually, moderately, or totally, which is especially advantageous for teachers who have other effective methods of teaching. The learning center approach may be the total instructional strategy or may be implemented for any part of the day (J. L. Thomas, 1975).

A final advantage of using learning centers concerns the teacher's role as it changes to one in which greater attention is given to each child. Using the learning center method, teachers become facilitators of learning and children become active participants of learning (Moore, 1974).

In spite of the previously attested advantages of learning centers, some educators continue to be critical

of the learning center approach. Blitz (1973) and J. L. Thomas (1975) concurred on some common criticisms of learning centers. They agreed that the disadvantages usually cited by critics include: a lack of necessary materials, insufficient space, and a belief that children are not capable of directing their own learning.

In reference to the criticism that there is a lack of materials, Stephens (1974) suggested that resources and materials can be obtained from various sources. Public and school libraries contain an abundance of resources. Also, managers of community stores are often willing to donate materials to schools. Finally, she contended that parents are invaluable sources of materials in that they will often contribute unused items and time for repairing or making new materials.

J. L. Thomas (1975) insisted that the concern over a lack of space was not a problem of too little space, but a lack of efficient use of space. He stated that movable bookshelves and storage cabinets promote space conservation when used as learning center dividers. Floor space, too, can be used for activities; this eliminates the need for unnecessary desks, tables, and chairs. In addition, Stephens (1974) indicated that hallways and outdoor space provide even more latitude in arranging learning centers.

The latter criticism was rejected by Blitz (1973) when she cited two rebutals against the contention that

children are incapable of directing their own learning. First, curriculum guides which are employed in traditional classrooms are developed according to children's interests and developmental skills and abilities. Secondly, the total organization of the learning centers and the available materials control what the children learn and how they manage their time. Therefore, children are trusted to direct their own learning within the structure of the learning centers.

In conclusion, some educators give credence to the value of using learning centers, while others criticize their feasibility. The advantages, however, appear to outweigh the disadvantages.

Roles of Learning Centers

Deciding upon the role of the learning center has been identified as the first step in creating one (Kaplan et al., 1973; J. L. Thomas, 1975; Blackburn and Powell, 1976; and Charles, 1976). Four major types of learning centers were discussed by J. L. Thomas (1975): motivational, diagnostic, prescriptive, and enrichment. Having determined the learning center's primary purpose (motivational, diagnostic, prescriptive, or enrichment), more specific types of learning centers are considered. Major and specific types of learning centers will be reviewed in the discussion that follows.

The Motivational Center. Generating the spontaneous interest of the student is the goal of this center. Unusual and novel materials and approaches are available in this center, from which a child may choose depending on individual interests and curiosities.

The Diagnostic Center. The purpose of this center is to provide the teacher with the opportunity to observe and analyze behavior of children as they work; consequently, needs and interests are identified, which enables the teacher to determine the kinds of learning centers that are needed.

The Prescriptive Center. The activities in this center are based on the results of the diagnostic center. Such centers provide opportunities for attainment of prescribed objectives based on a prior diagnosis.

The Enrichment Center. Improvement of learning experiences is the purpose of this center. This is where children may go for additional work on a topic or skill.

The Subject Center. This center consists of the traditional subjects taught in the classroom; for example, science, reading, and mathematics are some topics.

The Interest Center. The interest center is based on activities structured around children's interests.

The Inquiry Center. At the inquiry center, children apply facts and data, project hypotheses, make inferences, and derive concepts and generalizations.

The Problem-Solving Center. Problem-solving activities may range from simple to complex tasks. Materials and activities in this center are used so that they stimulate questions and raise problems.

The Theme Center. Any topic of study may constitute the theme of a center. Each subject area provides multiple opportunities for developing theme centers.

The Skills Center. The purpose of this center is to promote development of specific academic skills. Activities range in difficulty from simple to complex, depending on the needs and abilities of the children.

The Invention Center. Given various assortments of materials, children are encouraged to invent, create, or construct anything they can.

The Construction Center. At this center, children may build with wood, cardboard, boxes, blocks, Lincoln logs, or erector sets. Social interaction skills play an important part in the completion of construction activities.

The Listening Center. The purpose of this center is to provide a place where children can listen to recordings of all types.

This discussion suggests that learning center possibilities are limited only by the input of the teacher and children. Whether major or specific in nature, the learning center's role is determined by its purpose.

Approaches to Implementing Learning Centers

Learning centers may be implemented gradually, moderately, or totally (Frank, 1974; Moore, 1974; Stephens, 1974; J. L. Thomas, 1975; and Charles, 1976). Each teacher's circumstances determine the approach chosen for implementation. How the teacher, children, administrators, and parents react to change is considered before determining a starting point for implementing learning centers. The following discussion concerns implementing centers gradually, moderately, and totally.

Gradually

Stephens (1974) recommended two ways of moving slowly toward open education with learning centers. Starting with one learning center is the first, and establishing one free activity period is the other.

When starting with one learning center, certain guidelines are observed. First, all children have an opportunity to participate in the center during some portion of the day. Second, self-directed, interesting activities are included in the center. Third, activities focus on a single subject, idea, or skill. Fourth, as the children's interest develops, the number and variety of activities are increased. Initially, children select some of their experiences, manage some of their time, and evaluate some of their experiences. As children demonstrate

ability to assume responsibility, more options are extended to them (J. L. Thomas, 1975).

Another method of slowly establishing learning centers is to start with a free activity period. Stephens (1974) and J. L. Thomas (1975) suggested beginning with one free activity period per week. This period is characterized by the free movement of children selecting activities which are familiar to them. Procedures necessary for learning center experiences are established in order to eliminate direct teacher supervision. The number of children allowed at the center, the duration of their stay, the available learning activities, responsibility to fellow children and for materials, and appropriate behaviors which insure good classroom management are to be discussed and clearly understood.

The number of activities involved during the free activity period has a direct effect on classroom management and the extent of the children's response to the centers. It is the teacher's responsibility to determine the number of learning centers needed to both manage and provide diverse activities which capture and hold the interest of all the children (J. L. Thomas, 1975).

Moderately

The moderate approach to implementing learning centers involves a balance between learning center routine and

formal type work (Stephens, 1974). The morning period is scheduled for structured traditional teaching of language arts and mathematics, while the afternoon is reserved for freer work in the block center, housekeeping center, art center, woodworking center and others. From this schedule children easily make the transition to a full day of learning center experiences.

Totally

Total implementation of learning centers is achieved gradually through the steps that have been previously described or all at once without interruptions. The participants' ability to adapt to change influences the route chosen for total implementation of learning centers (Frank, 1974).

Suggestions for Implementation

Regardless of the method chosen for implementing learning centers, Moore (1974) offered the following suggestions for establishing learning centers:

1. Define learning centers and make them accessible.
2. Give a title or number to each learning center.
3. Gear learning center tasks to the ability levels of the children.
4. Change activities regularly in order to maintain the children's interest.

5. Introduce each learning center activity so that the children are aware of the purpose of the activity and materials involved.

6. Include holiday and seasonal themes in learning center activities.

7. Arrange materials so that they are easily accessible and replaceable by children.

8. Require completion of each initiated task.

9. Keep a record of centers visited by each child and progress made.

10. Define the maximum number of children allowed in the center at one time.

11. Provide a bulletin board or table for display of learning center work.

12. Frequently evaluate learning centers in terms of expectations of both the teacher and the children.

Roles of Teacher and Children

Having considered the roles of learning centers in the classroom, it is concluded that the roles of the teacher and children in developing and implementing learning centers are appropriate topics of discussion; therefore, the roles of the teacher and children are discussed next.

The teacher's goal is to promote in children development of respect for others, a sense of responsibility, self-discipline, and independence in learning. In open

education, the teacher's role is primarily that of a facilitator of learning rather than that of purveyor of knowledge (Day, 1975). The teacher is responsible for providing educational experiences which are based on a careful diagnosis of individual needs and which promote independent thinking (Stephens, 1974). Appropriate experiences are the result of the environment organized by the teacher. In planning the environment, the teacher is aware of available resources and classroom management strategies. Another responsibility is to interact with children while constantly challenging, suggesting, and stimulating thinking (Kaplan et al., 1973).

Stephens (1974) further indicated that in open education, teachers do not limit learning and investigations to those problems with which they are familiar. They acknowledge the importance of the children being active participants in their own learning. Also, they encourage children to make independent decisions concerning their problems. They respect children and accept the differences which distinguish them. Realistic standards are set for each child; furthermore, teachers realize that their responsibility is to promote learning.

Kaplan et al. (1973) suggested several roles of the teacher dealing with learning centers. The teacher prepares the learning tools, such as games, and collects available resources for the learning centers. Learning

centers are thoroughly introduced by the teacher so that children know what to do at the center, how to use each activity, where necessary materials for production are kept, and where finished products are to be stored. The teacher motivates and encourages children to use the learning centers. Finally, the teacher provides a system of record keeping and evaluating so that progress can be easily assessed.

Open educators agree that children are responsible for their own learning (Spodek, 1972; Blitz, 1973; and Stephens, 1974). Such responsibility is assumed through decision-making processes. Children accept an active role in their learning by making decisions about their work and exercising freedom of choice; therefore, in the open education classroom utilizing learning centers, children organize their day, choose their activities, and explore their interests.

Summary

A review of the relevant research indicated a relationship between the effectiveness of the learning center approach to open education and the degree to which the teacher is psychologically involved in developing learning centers. The attitude of openness appears to be the most basic criteria for successfully developing learning centers (Marshall, 1972). A positive, creative, and

enthusiastic atmosphere surrounding learning centers encourages learning and strengthens a child's desire to learn (Giles, 1975). One might speculate, therefore, that the successful implementation of learning centers in a kindergarten classroom is a direct result of the implementing teacher's attitude toward open education.

CHAPTER III

PLANNING ENVIRONMENT AND CURRICULUM

The first chapter of this project discussed assumptions underlying the concept of open education and the significance of early childhood education. The purpose of this project was to develop an open education kindergarten curriculum guide utilizing learning centers; therefore, the second chapter reviewed literature relevant to learning centers. This chapter is concerned with specific aspects of planning the kindergarten environment and curriculum. Initially, the physical environment, materials, classroom management, evaluation and record keeping, and parental involvement are discussed in detail. This is followed by an in-depth discussion of the following learning centers with respect to goals, objectives, enabling activities, and materials and supplies: math, science, language arts, social studies, art, music, blockbuilding, dramatic play, sand and water, woodworking, cooking and sewing, and movement.

Statement of Procedures

In order to develop this curriculum guide, specific components of curriculum development were identified. Kindergarten children's needs were determined, objectives were developed, content was determined, enabling activities were developed, and evaluation procedures were determined.

First, basic needs of the kindergarten child were determined as the need to develop emotionally, socially, intellectually, and physically. Based upon these needs specific objectives were developed. The content was then identified according to the needs and interests of kindergarten children and was organized by subject area since this method is prevalently used among educators. Then enabling activities were developed to meet the objectives and to cover the range from simple to difficult and from concrete to abstract. Finally, methods of evaluation were determined to include observations, conferences, and samples of children's work. Anecdotal records, charts, and checklists were developed to aid in accumulating data for evaluation. Charts and checklists were designed so that the children could keep records of their work which would encourage self-evaluation.

Physical Environment

When planning the physical environment for the kindergarten classroom utilizing the learning center approach, outdoor and indoor space is arranged for optimal use of the totality of school space. If possible, the outdoor area is easily accessible from the classroom. (Spodek, 1972).

Outdoor Space

Leeper, Dales, Skipper, and Witherspoon (1968) indicated that outdoor space is often neglected when planning an environment for young children. They contended that total development of the child (physically, intellectually, socially, and emotionally) is dependent upon utilization of the total environment when planning educational experiences.

Decker and Decker (1976) suggested that three criteria be considered prior to setting up the outdoor environment. First, activities similar to indoor experiences are available outdoors. This prevents outdoor space from being used only for running or standing about and provides additional challenge for intellectual, social, and emotional activities as well as physical activities. Second, the outdoor environment provides opportunities for aesthetic appreciation by emphasizing a sensuous awareness of seeing, hearing, smelling, touching, and tasting. The third

criteria is that the outdoor environment is safe. Safety is insured by selecting appropriate surfacing, enclosing outdoor space, and providing adequate supervision.

Considering the previously discussed importance of extending indoor learning activities to outdoor areas, the outdoor environment is arranged for both passive and active play. Passive play areas are enclosed and protected from active play by shrubbery, large stones, or sheltered areas. Figure 1 illustrates this by providing a covered cement patio for passive activities such as painting, reading, and woodworking. Active play, such as climbing, running, and throwing balls, is done at the opposite side of the playground.

Indoor Space

Within each classroom, several factors are essential to consider prior to setting up specific learning centers (Leeper et al., 1968). First, room size can restrict or enhance the effectiveness of the environment. Forty to sixty square feet per child are recommended for a classroom utilizing the learning center approach. Regardless of the number of children involved, a minimum of 900 square feet are necessary.

Another factor to consider before arranging the room for learning centers is noise levels within the various centers. Noise levels are controlled by locating centers

DESIGN FOR OUTDOOR AREA

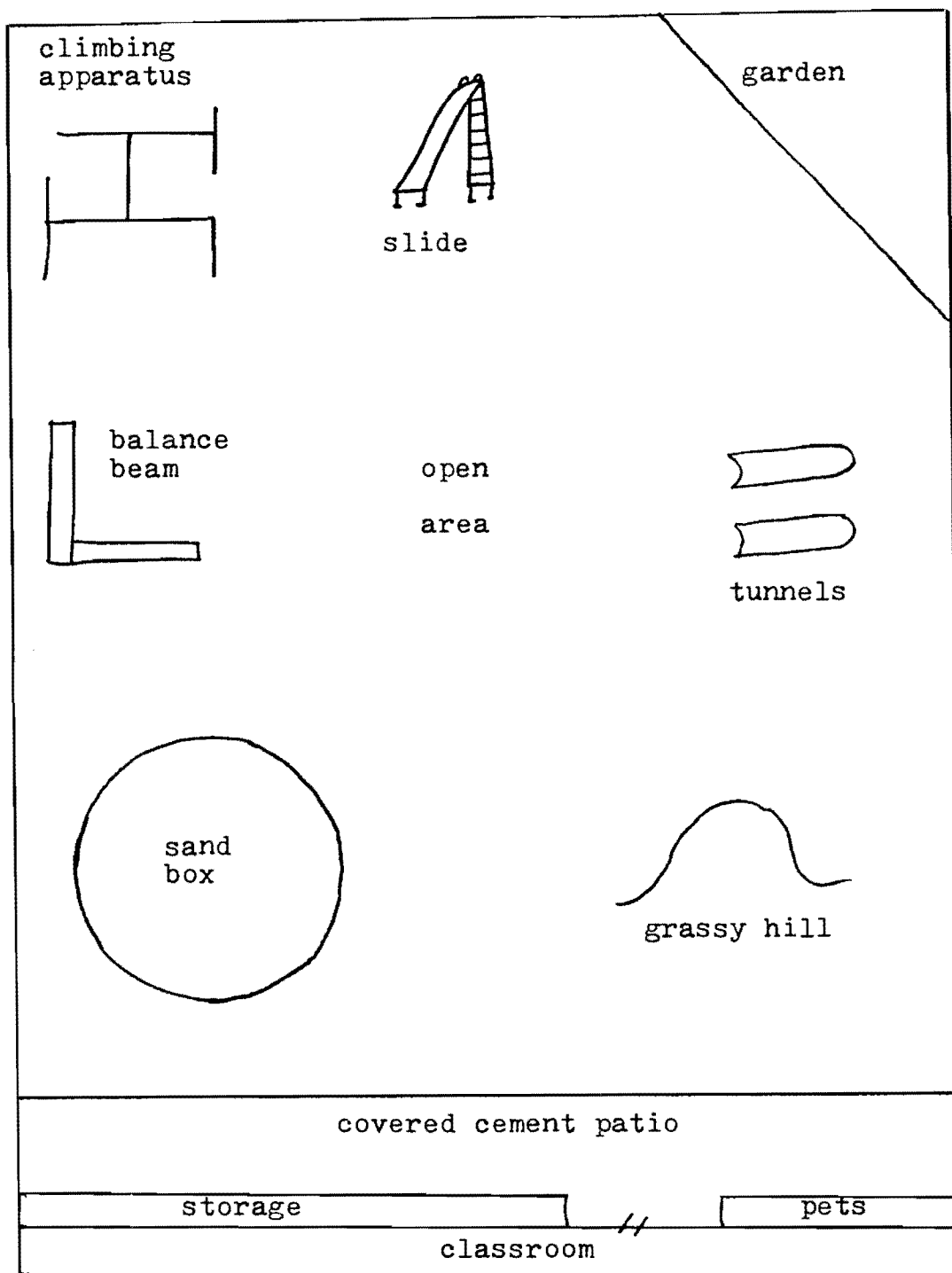


Figure 1

with similar noise levels together, placing noisy centers outside, providing headsets, and using adequate acoustical materials on the floor, ceiling, and walls. For example, Decker and Decker (1976) recommended the following: Library and concept centers are placed together. The wood-working center is located outside. Headsets are used in the listening center. Carpet is used in the blockbuilding and housekeeping centers. Ceilings and walls are covered with tile and soft pine.

Having considered where to locate each center, providing adequate space is another factor to examine. The types of activities conducted within each center determine the amount of necessary space. For example, the number of children playing in the center, the size of materials or equipment, and the active or passive nature of activities provide guidelines for allowing more space for the blockbuilding, housekeeping, and sand centers than for the sewing and listening centers (Stephens, 1974).

Another factor to consider prior to setting up learning centers is ^{division of} division of centers. Possibilities for center dividers include shelving units, storage cabinets, portable chalkboards and bulletin boards, cardboard, cloth, and boxes. Using dividers encourages children to differentiate among the various centers (Kaplan et al., 1973).

As previously discussed, floor covering is a factor to be considered when arranging learning centers. Floor

) covering that is easy to clean, durable, and absorbs sound is used in the kindergarten classroom. Various types of vinyl floors, linoleum and carpet are prevalent in kindergartens. Carpet is used in noisy, nonwet areas; whereas, resilient flooring is used in areas which are used for wet activities (Leeper et al., 1968).

Furniture is also an important consideration when determining learning center arrangement (Spodek, 1972). The furniture in the kindergarten classroom utilizing learning centers is movable, durable, child-sized, and easily cleaned. Although desks are not preferred when utilizing the learning center approach, they may be clustered to form learning center areas. Tables and chairs, however, are more feasible for this approach because they provide ultimate use of floor space. In addition to tables and chairs, shelves and cabinets for storage and display are necessary pieces of furniture.

Figures 2 and 3 illustrate room arrangements based upon the previously discussed factors which influence designing a room with learning centers. Figure 2 is suggested for a large room; whereas, figure 3 is more appropriate for a small room.

Storage and Display

Several aspects of storage and display facilities are considered when planning the learning center environment.

ROOM DESIGN FOR LARGE AREA

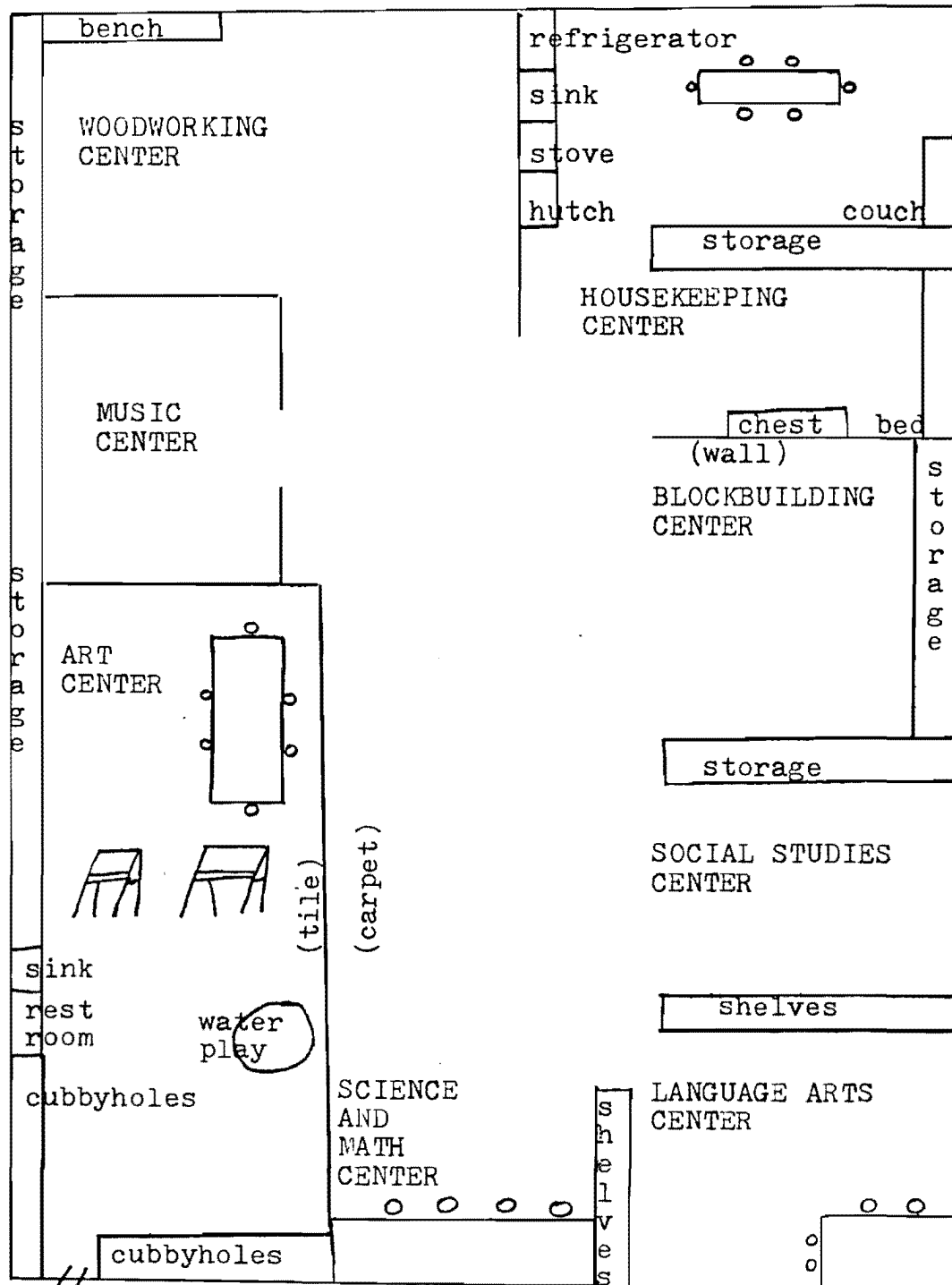


Figure 2

ROOM DESIGN FOR SMALL AREA

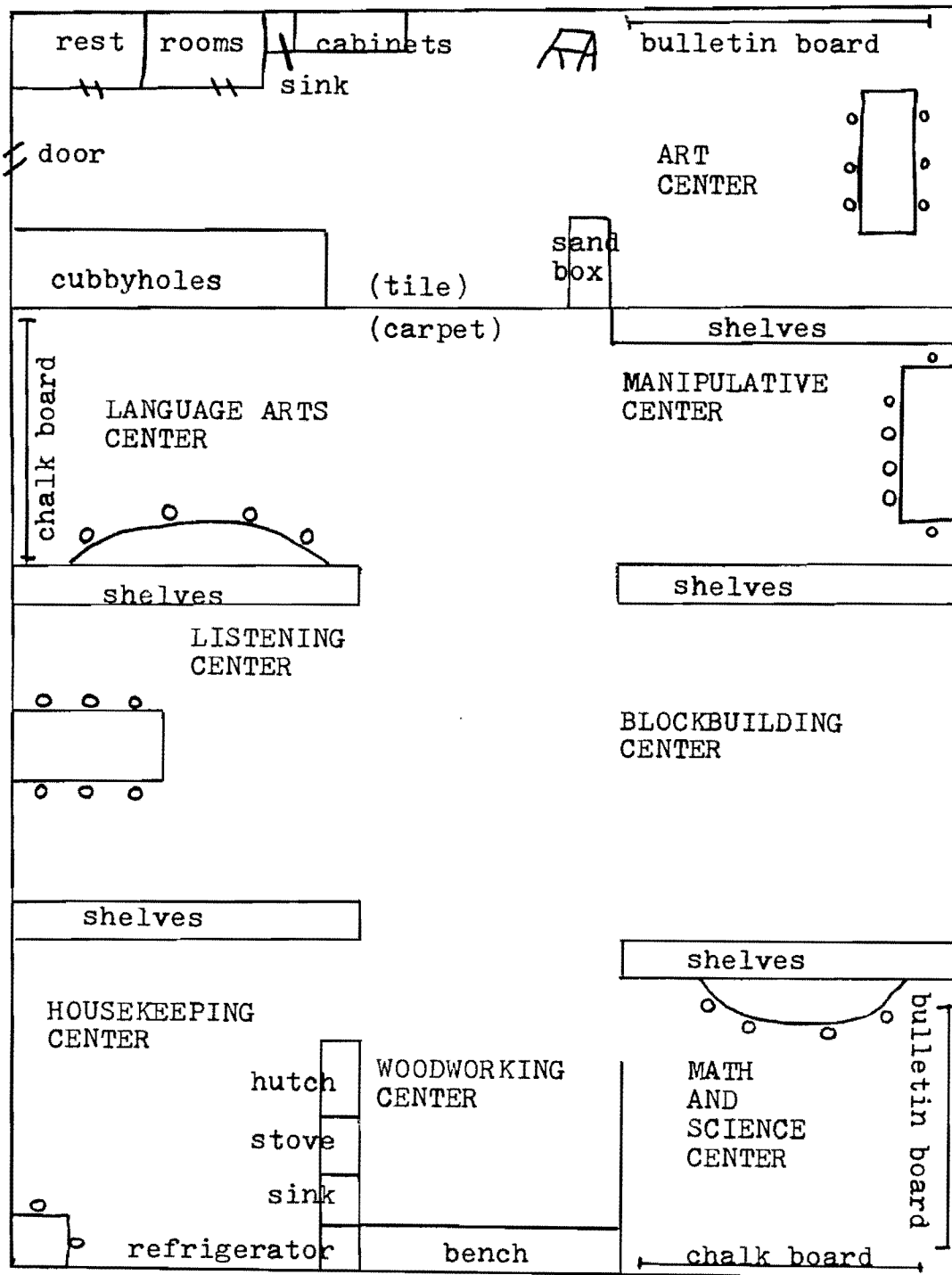


Figure 3

Indoor and outdoor materials which are used daily are to be stored. Materials which are not used on a daily basis, such as picture files, are to be readily available. Seasonal equipment is to be stored. Consumable supplies are to be available and easily accessible. Finally, audio-visual equipment and materials are to be stored.

In arranging for storage in the kindergarten classroom, certain factors influence the arrangement of learning centers. Storage cabinets are low enough for children to secure their own materials. Shelving units are placed near the areas in which they will be used. Equipment and materials are well-organized on shelves or in cabinets so that children can easily determine what is available (Decker and Decker, 1976).

Another consideration in arranging the room for learning centers is space for display of children's products and creations (Blackburn and Powell, 1976). There are several ways to provide such space. Shelves, doors, windows, clotheslines, and backs of storage cabinets supply display space. However, displays are placed at the children's eye level when possible.

When desks are not used in the classroom organized with learning centers, storage space is also necessary for children's personal possessions (Kaplan et al., 1973). There are several ways to achieve this goal. Lockers provide places where children hang their outer garments and

some include a cubbyhole which is a small shelf or box area where children store art work and personal treasures. Inexpensive cubbyholes are created with shoe boxes, open shelves, and wire file trays.

Regardless of the method chosen for storing children's belongings, two factors are to be considered in planning for lockers and cubbyholes. First, lockers and cubbyholes are to be conveniently located near the entry-exit area. Second, writing the children's names on their lockers and cubbyholes provides a convenient method of identification.

Materials

In the learning center approach it is imperative to supply each center with multi-leveled, self-checking materials (Day, 1975). Materials vary according to children's interests, achievements, and abilities. In addition, materials include a method for children to check their own work so that they can work independently with a minimum of teacher assistance.

Materials in the kindergarten classroom may be teacher made or commercially purchased. One of the major resource areas is parents of the children in the classroom. They are usually willing to collect and donate materials. Other resources in the local geographic area would include merchandise donated by community shops, lumberyards, fabric stores, the telephone company, toy stores, and hardware

stores.

Materials may also be obtained from parents' homes. Items such as carpet pieces, cloth scraps, books, old clocks, a typewriter, clothes, and toys are willingly contributed to the classroom. Parents are often willing to repair and paint old materials and even volunteer to make new materials and games.

The use of materials in the open classroom is significant in that they challenge and stimulate a child's interest and lead to further exploration. However, Stephens (1974) cautioned teachers against providing too many materials at one time. Children quickly become bored with an over-endowed environment; furthermore, they may not adequately explore the available materials because of too much stimulation.

Stephens (1974) and Frost (1976) suggested ways to rotate materials in centers. Instead of displaying all available materials, a maximum of five or six are provided at one time in each center. New materials are introduced as children progress in ability, achievement, and interest. Materials which have not been used for a period of time can be successfully reintroduced; this promotes sustained interest in learning centers.

The Florida State Department of Education (1969) offered the following guidelines for selection of materials for a kindergarten classroom. Materials should provide

for:

1. Stimulation of large muscle activity
2. Cooperative play
3. Expression of ideas
4. Quiet and noisy activities
5. Development of independence
6. Problem-solving, intellectual stimulation
7. Aesthetic growth
8. Experimentation and creativity
9. Enjoyment of literature
10. Challenging skills

Classroom Management

In order that children in a learning center environment can optimally benefit from the space and materials previously discussed, both long-range and short-range planning are essential prior to implementation (Spodek, 1972). Long-range planning is necessary for organization of activities which promote achievement of broad educational goals. Such planning includes gathering essential resources, planning field trips, and ordering new supplies. Short-range planning, on the other hand, provides for daily experiences organized to meet specific educational objectives. As a result of long and short-range planning, an activity schedule is organized to provide continuity in learning, to aid children in overcoming learning

deficits, to balance the day between skill and content, to provide ultimate use of materials and equipment, and to aid in prevention of emergencies (Decker and Decker, 1976).

Several factors, however, which influence planning an effective kindergarten program are essential to consider (Leeper et al., 1968; and Decker and Decker, 1976). The developmental levels, interests, and needs of both individuals and groups of children are important. The amount of available adult supervision and assistance is considered. Consideration of the size and arrangement of the physical environment is necessary. Available materials and resources are analyzed with respect to the children's needs. Finally, the length of the school day influences effective planning for the kindergarten program.

When scheduling the kindergarten day, whether half or full day, provisions are made for a balance between physically active and quiet times, and a balance between indoor and outdoor activities. Flexibility is also vital in order to deal with emergencies and unplanned activities. Scheduling is important to children for it encourages them to anticipate future events because of a regularity of daily occurrences.

The following examples of schedules are suggested as guides in planning a schedule for a kindergarten program. The first schedule is for a half-day program.

8:45-9:00 A.M.-Arrival. The children enter the room at various intervals allowing the teacher to greet each child individually. During this period, children browse through books or work with manipulatives such as puzzles.

9:00-9:15 A.M.-Group time. At this time, the day is planned by the teacher and children. New activities or materials are introduced and attendance is taken. Children can be responsible for attendance by coloring their name on a name chart or overturning their picture on a picture board.

9:15-10:15-A.M.-Activity period I. During this time "quiet" center work is preferred. For example, centers such as language arts, math, art, listening, and manipulatives are utilized during this period.

10:15-10:30-A.M.-Group time. Some teachers consider a daily group activity period involving the entire class a necessary part of a kindergarten program, while others do not feel it is needed in an open education kindergarten program. However, when preferred by the teacher, a snack, musical activities, and/or literature experiences are planned.

10:30-11:00-A.M.-Outdoor activity period. An outdoor activity period is scheduled when the openness of the kindergarten program does not include the opportunity for children to engage in such activities during the regular activity periods.

11:00-12:00-noon-Activity period II. During this time, children are involved in activities at the "noisy" centers; these include the housekeeping center, sand box, blockbuilding center, water play center, and woodworking center.

An example of a full-day kindergarten session is as follows:

8:45-9:00-A.M.-Arrival

9:00-9:10-A.M.-Group time

9:10-10:30-A.M.-Activity period I

10:30-10:50-A.M.-Outdoor activity period

10:50-11:00-A.M.-Preparation for lunch

11:00-11:30-A.M.-Lunch

11:30-12:00-noon-Quiet time. Children are allowed to unwind in their own way. Some will listen to music or a story or view a filmstrip. Others will browse through books or draw pictures.

12:00-12:30-P.M.-Outdoor activity period

12:30-1:30-P.M.-Activity period II

Evaluation and Record Keeping

Assessing and recording children's progress is a necessary aspect of developing a program for the young child (Frost, 1976). Educational goals and objectives form the basis for planning and evaluation. From this perspective, a distinction is made among three types of

evaluation. Diagnostic evaluation occurs prior to instruction and determines the child's present status in relation to a specific or general objective. Using diagnostic information, the teacher is able to formulate instructional plans for each child. Since the purpose of formative evaluation is to assess the child's progress throughout a given plan of study, it is a continual process conducted during instruction. Summative evaluation occurs at the end of a given interval or unit of study and assesses to what extent the instructional objectives have been accomplished.

Early childhood educators recommend a variety of methods to obtain data for evaluation. (Leeper et al., 1968; Spodek, 1972; and Stephens, 1974). However, regardless of the method of evaluation, record keeping is descriptive.

Observation is the simplest way to obtain data about children. If this method is chosen, behavior is recorded in either anecdotal or chart form. When using anecdotal records behaviors are stated descriptively. The following chart illustrates how to record work choices by indicating the date and activities in which children participate (Spodek, 1972):

CENTER CHOICES

Date	Art	Math	Blocks	Language Arts	Manipulatives
1-5-76	Jo			Jo	Jo
		Beth	Beth		Beth
	Jay		Jay		

Figure 4

Another instrument to use during observation is a checklist. The type of information the teacher wishes to obtain determines the kind of checklist used. Figure 5 illustrates a checklist of gross movement skills. As a child achieves a skill the date of achievement is recorded in the appropriate block.

A conference in the form of informal conversation with children is another approach to accumulating information for evaluation. While talking with children the teacher discovers how they feel about themselves, their work, and other children (Stephens, 1974). At times parents are included in conferences.

CHECKLIST

	Kim	Sue	Jon	Jim
1. Balances on one foot				
2. Walks on balance beam				
3. Can jump				
4. Can hop on one foot				
5. Can skip				
6. Throws, catches, and bounces large ball				

Figure 5

Samples of the children's work provide a long-range view of their progress for use in evaluation. However, it is important to date the samples and collect them on a regular basis.

Self-evaluation is encouraged through the use of records such as those shown in Figures 6, 7, and 8. To use the example in Figure 6, the child colors in the space corresponding to the number of the activity completed at a particular center. In Figure 7 the child colors the space on a laminated chart that corresponds to the number of the center where an activity was completed. Figure 8 is a daily record of activity choices.

ACTIVITY RECORD

Name _____

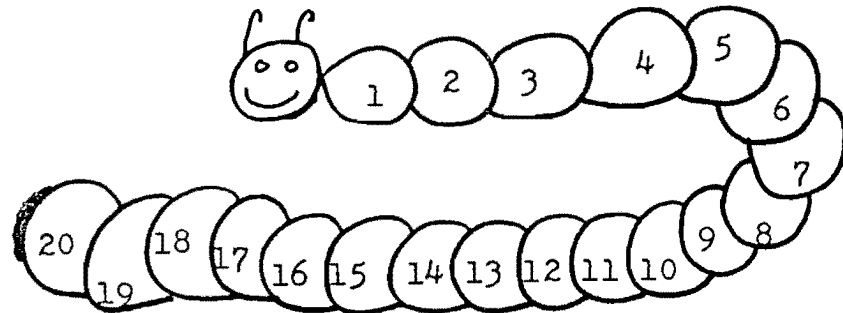


Figure 6

ACTIVITY RECORD

Jim	Beth	Jason	Carrie	Jeremy
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5

Figure 7

ACTIVITY RECORD

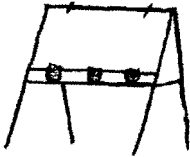


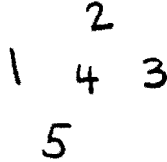


Name:	
Date:	
Choose at least four activities.	
Art <input type="checkbox"/> 	Woodworking <input type="checkbox"/> 
Blocks <input type="checkbox"/> 	Math <input type="checkbox"/> 
Language Arts <input type="checkbox"/> 	Meet with teacher. <input type="checkbox"/> 

Figure 8

Parental Involvement

As previously discussed, in a program involving young children, it is necessary to carefully plan the school environment; likewise, it is essential to consider the home environment prior to establishment of a kindergarten program. Cooperation between parent and teacher is important for an effective, on-going program, for both teacher and parents serve as educators of children (Leeper et al., 1968; Spodek, 1972; Stephens, 1974; and Frost, 1976). There are several ways in which to involve parents in school activities. Those commonly employed by teachers are meetings, newsletters, parent-teacher conferences, class participation, and financing.

Meetings include informal encounters, open house, and workshops (Hess and Croft, 1972). Informal meetings consist of those encounters between parent and teacher during the child's arrival and departure. It is important to greet parents by name and engage in casual, friendly conversation.

An open house meeting at the beginning of the school year provides an opportunity for teachers to convey to parents their interest in parents as well as children, for parental involvement is both desired and expected. This is also a time to share information concerning the kindergarten program. Professional articles, filmstrips, and informal discussion are alternatives to presentation of

such information.

Workshop meetings also provide an effective way to involve parents in school activities. Parents and teachers share responsibility for selection of workshop topics. A survey letter such as the following enables and encourages parents to identify their needs and preferences:

Dear Parents,

We are planning to have three or more workshops in kindergarten this year. Please rate the following topics by preference:

Math	_____
Reading	_____
Writing	_____
Physical Development	_____
Others _____	_____
_____	_____

It is imperative to remain open and responsive to the needs and preferences of parents.

Newsletters written by the teacher or parents provide an efficient method of informing parents about class happenings. When written by the teacher, ideas and suggestions for parents to reinforce the kindergarten program are included (Allen and Allen, 1969).

The parent-teacher conference is an important aspect

of evaluating a child's needs and reporting progress to parents. In planning for a conference, positive aspects of the child's development are identified in addition to negative aspects. The teacher gains insight about the child's interests and needs during a conference, for parents also have valuable information about their child to exchange with the teacher (Stephens, 1974).

Class participation, another area of involvement, provides many opportunities for parents to enrich the kindergarten's curriculum (Hess and Croft, 1972). The following list concerns suggestions for class participation:

1. Supervise cooking activities
2. Chaperone field trips
3. Repair books
4. Reinforce school related skills
5. Supervise pasting of pictures in scrapbooks
6. Cut out art materials
7. Help prepare and plant garden
8. Supervise painting area
9. Write titles and names on pictures
10. Thread filmstrips in viewers
11. Change records and tapes in listening center
12. Read stories
13. Read task cards
14. Assist with parties and picnics

One of the major resource areas for financing is parents of children in the classroom. As discussed in a

preceding section, parents are usually willing to collect and donate materials; in addition, they will volunteer to repair used materials and make new ones.

A teacher is more successful with young children if parents are considered while planning the educational environment and curriculum. By suggesting the following types of activities, the teacher guides parents in extending school experiences to the home environment (Leeper et al., 1968):

1. Lead the child to search for answers to questions.
2. Carefully select television programs and movies along with viewing times.
3. Encourage the child to question, discuss, experiment, explore, discover, and create.
4. Provide a balance in home experiences.
5. Insure that listening and viewing experiences are not too frequent or too long in duration. These experiences are not to interfere with eating, sleeping, or outdoor physical activity.

Learning Centers

Prior to effective implementation of learning centers in kindergarten, it is essential to identify specific components of a learning center. Specific components include goals, objectives, materials and supplies, and enabling activities.(Charles, 1976). However, due to varied

interests, abilities, and achievements of children, the contents of these components vary within each specific program in order to fulfill needs of the children. Goals, objectives, enabling activities, and materials and supplies have been identified for the following learning centers: math, science, language arts, social studies, art, music, blockbuilding, dramatic play, sand and water, woodworking, cooking and sewing, and movement.

MATH

Goals

1. To develop a number vocabulary
2. To discover basic math concepts through exploration and experimentation
3. To manipulate a variety of materials in solving problems
4. To progress from concrete experiences to the abstract
5. To enjoy math activities
6. To share discovery with others
7. To perform math activities independently
8. To cooperate with a group of children
9. To complete math activities

Objectives

1. Match two sets by one-to-one correspondence

2. Count 1-10
3. Describe an empty set
4. Identify cardinal number of sets 0-10
5. Combine sets
6. Separate sets
7. Identify a subset
8. Identify numerals 0-10
9. Compare sizes, shapes, amounts
10. Identify positional relations of objects
11. Identify the four basic shapes
12. Measure objects by weight, volume, height, length
13. Compare money values
14. Cut objects in halves, fourths

Enabling Activities

1. Read the calendar daily.
2. Form pairs of objects.
3. Use a variety of objects to classify according to size, shape, color, texture, and preference.
4. Use balance scales to compare weights and sizes.
5. Use geoboards to make designs, shapes, and angles.
6. Make number sewing cards by punching holes along the outline of a picture or design and numbering the holes in correct sequence.
7. Order objects according to correct sequence.

8. Provide opportunities to match numeral to set.
9. Form sets of objects according to cardinal numbers.
10. Draw and cut shapes.
11. Find examples of the four basic shapes in the classroom.
12. Weigh and measure height of children.
13. Measure the length of the classroom.
14. Use sand to measure volume by using standard and nonstandard measuring devices.
15. Sort coins and discuss amounts using such terms as same, more than, and less than.
16. Experiment with modeling clay and paper to form halves and fourths.

Materials and Supplies

counters, boxes and trays	abacus
counting frame	shapes
clocks	number lines
cuisenaire rods	rulers
number lines	yardsticks
balances	tape measures
play money, cash register	thermometers
geoboards	measuring devices (spoons, cups, quarts, etc.)
pegs, pegboards	dominoes
scales	blocks, varied shapes
stopwatch	and sizes
timer	

felt shapes, numerals, figures	flannel board
calendar	sandpaper numerals
puzzles	games, commercial and
nonstandard measuring devices	teacher-made

SCIENCE

Goals

1. To develop scientific processes of observation, classification, prediction, investigation, and forming generalizations.
2. To develop habits of thinking inquisitively
3. To develop basic concepts of science
4. To develop a positive attitude toward living things and their interrelationships
5. To cooperate in group experiences
6. To complete initiated activities
7. To manipulate materials and supplies related to science

Objectives

1. Describe likenesses and differences among people
2. Classify and label animate and inanimate objects
3. Classify rocks, soil, shells, leaves, etc.
4. Classify objects according to magnetism
5. Predict magnetism
6. Differentiate among the five senses

7. Chart progress and results of experiences
8. Identify weather conditions
9. Predict weather conditions
10. Describe the four seasons
11. Create simple machines
12. Observe plants and animals

Enabling Activities

1. Cut open fruits and vegetables and compare the different sizes, shapes, number, and colors of seeds.
2. Plant a garden and observe, measure, and chart growth.
3. Plant identical seeds or plants using different types of soil or varied amounts of sunlight and compare changes.
4. Display for observation children's collections of caterpillars, spiders, ladybugs, sprouting onions and potatoes, moulded bread, leaves, rocks, and seashells.
5. Build a vivarium for care of toads, lizards, and frogs.
6. Observe ants and discover division of labor.
7. Care for pets such as gerbils, snakes, rabbits, and mice.
8. Go on outdoor explorations and field trips such as nature walks around the school, ponds and

streams, and state parks.

9. Observe changes in the soil of an earthworm farm.
10. Care for animals in an aquarium.
11. Sort pictures of people according to likenesses and differences.
12. Display magnets, metal objects, and nonmetal objects for exploration.
13. Explore things to smell, taste, touch, hear, and see.
14. Discuss and chart daily weather conditions.
15. Depict the four seasons using art media.
16. Make and manipulate wheels, pulleys, levers, and inclined planes.

Materials and Supplies

aquarium	terrarium
animal cages	prism
watering cans	compass
microscope	magnets, variety
iron fillings	seeds
barometer	thermometer
plastic tubing	strainers
weathervane	egg timer
dry cell battery	measuring devices
simple machines (pulley, lever)	scales
rocks, shells, leaves, etc.	clocks

baby food jars	magnifying glass
things to touch, taste, smell,	tuning fork
hear, see	gardening tools
mirror	telescope
kaleidoscope	hot plate
human body cutouts	calendar
maps and globes	

LANGUAGE ARTS

Goals

1. To develop language through speaking, listening, writing, and reading
2. To use language to influence and be influenced
3. To successfully work with materials suited to interest and developmental level
4. To develop an appreciation of literature
5. To manipulate materials alone, with a small group, and with adults
6. To expand vocabulary
7. To develop eye-hand coordination

Objectives

1. Verbalize experiences
2. Discuss pictures
3. Create a language experience story
4. Identify likenesses and differences among sounds
5. Imitate sounds

6. Retell a story in proper sequence
7. Visually discriminate among objects
8. Follow directions in a three step task
9. Visually follow a pattern from left to right
10. Read own name
11. Write own name
12. Enjoy stories and poetry

Enabling Activities

1. Discuss field trips or other events in proper sequence and write what happened.
2. Draw and paint pictures and tell about them.
3. Listen to recordings of home sounds, animal sounds, and people sounds, then identify source.
4. Use rhyming words to create poetry.
5. Identify beginning sounds of words.
6. Listen to a story and role play the events.
7. Pantomime a story, song, or poem.
8. Discuss the likenesses and differences among objects and pictures.
9. Play the game "Simon Says."
10. Follow a pegboard pattern and bead pattern from left to right.
11. Take attendance by reading name cards.
12. Manipulate letters in name to form the correct sequence.
13. Form name with clay, paint, and collage materials.

14. Use the overhead projector to reflect and trace pictures, shapes, and letters on the chalkboard.
15. Use filmstrips and loops to stimulate observation and prediction.
16. Touch various textured objects and discuss the texture.
17. Audio tape children singing or telling a story and listen to the recordings.
18. Write titles or captions for children's drawings.
19. Experiment writing with a typewriter.
20. Write or draw on the chalkboard.
21. Using word cards which are meaningful to oneself, draw a picture about the word on the back.
22. Trace felt, sandpaper, and wooden letters.
23. Make books of all kinds; for example, use themes such as colors, shapes, letters, numbers, holidays, seasons, and five senses.
24. Role play with puppets.
25. Play commercial and teacher-made matching and sorting games.

Materials and Supplies

flannel boards

large alphabet blocks

sequence cards

magazines & catalogs

flannel figures

puzzles

magnetic board

comic strips

chalkboards, wall & lap	listening station
telephones	language master
filmstrip previewer	typewriter
record player	tape player
overhead projector	slides, hand viewer
filmstrips, loops, tapes,	picture file
records	word cards
sand paper letters	wooden letters
letter recognition games	letter boards
initial sound games	lotto games
clay	experience charts
pictures & objects to classify	writing paper
pencils, colored marking pens,	poem & story starters
crayons	blank booklets
picture dictionary	feel box
magic slates	book jackets
puppets & theatre	rocker
assortment of books	shelves
large area rug	drawing paper
manipulative devices	

SOCIAL STUDIES

Goals

1. To develop socialization skills
2. To develop self-responsibility and self-discipline
3. To learn that each person has worth and dignity
4. To develop an awareness of the interdependence

of people

5. To develop an awareness of people's basic needs
6. To empathize with others who are different
7. To develop respect for rules
8. To develop an appreciation of contributions of others
9. To develop an understanding of how others live
10. To learn to make value judgements

Objectives

1. Share materials and ideas
2. Listen when others talk
3. Develop friendships
4. Obey classroom and playground rules
5. Identify desirable personality characteristics
6. Describe likenesses and differences among people
7. Classify likenesses and differences among people
8. Identify roles of family members
9. Identify roles of community members
10. Categorize means of transportation
11. Identify likenesses and differences between our culture and another culture
12. Differentiate among homes of people and animals
13. Identify preferences
14. Volunteer to help others
15. Identify feelings
16. Express feelings

Enabling Activities

1. Play with small groups of children.
2. Clean after activity period.
3. Share ideas in a small group.
4. Use puppets to role play situations involved in making friends.
5. Take a walk around the block and observe safety rules.
6. Draw and compare pictures of children's homes.
7. Visit the airport, train terminal, zoo, dairy, farm, and museums.
8. Invite community workers to visit and discuss their work.
9. Build a variety of communities.
10. Role play situations involving family members, community workers, and people of other cultures.
11. Celebrate holidays by role playing, cooking holiday foods, and creating art projects.
12. View filmstrips on current topics of interest.
13. Create family trees.
14. Create a model of the school with blocks or draw it with crayons.
15. Dictate autobiographies for writing or taping.
16. Draw and paint oneself, family, classmates, neighbors, and acquaintances.
17. Make books about topics of interest.
18. Listen to stories and recordings and view filmstrips

about as many different occupations as possible.

19. Find pictures of workers in magazines and categorize them.
20. Create transportation models with clay, wood, boxes, paper, and styrofoam.
21. Locate animal homes on the playground and compare them.
22. Discuss and create art projects about things each child likes; for example, food, clothes, colors, and toys stimulate thinking about preferences.
23. Show various emotions through a puppet's actions.
24. Pantomime emergency situations.

Materials and Supplies

books	records, tapes, filmstrips
maps	globes
magazines & catalogs	picture file
models of workers, stores,	telephones
vehicles	traffic signs
scrapbooks	clay
building blocks	dress-up clothes & hats
record player	tape recorder
puppets, theatre	commercial & teacher-
art media	made games
doll family	cupboard
stove	sink

dining table, chairs	ironing board, iron
rocking chair	refrigerator
empty cartons for grocery store	suitcase
hotplate	

ART

Goals

1. To manipulate a variety of art media
2. To develop small and large muscles
3. To develop eye-hand coordination
4. To experiment freely with art media
5. To experience sensory pleasures
6. To release emotions during art activities
7. To express ideas and feeling through art activities
8. To feel successful in creative expression
9. To develop an awareness of line, color, form,
and texture
10. To develop an appreciation of art

Objectives

1. Paint pictures and designs
2. Draw pictures and designs
3. Model with clay
4. Cut with scissors
5. Tear paper
6. Print with various objects
7. Sew with fabric and cardboard

8. Weave patterns
9. Paste and glue various materials
10. Construct sculptures
11. Create designs
12. Describe lines in a picture
13. Identify colors
14. Discover how to make secondary colors
15. Describe the form of an object
16. Classify textures
17. Value one's creations

Enabling Activities

1. Paint with brushes, sponges, string, q-tips, and objects using tempera and various types of paper.
2. Finger paint on counter tops, table tops, and paper.
3. Water paint on sidewalks and buildings.
4. Paint with water colors.
5. Spatter paint with toothbrushes.
6. Draw with crayons, crayons, pencils, and colored marking pens.
7. Model with modeling clay and pottery clay.
8. Using scissors, cut paper, string, clay, styrofoam, fabric, and cardboard.
9. Using paper, tear lines, shapes, and free forms.
10. Print with vegetables, sponges, styrofoam, and spools.

11. Sew with a needle, yarn, and burlap by following a printed design.
12. Sew with cardboard and string by following holes to form a picture or design.
13. Weave patterns with cardboard and yarn.
14. Create collages with paper, fabric, styrofoam, feathers, ribbon, and other materials.
15. Construct sculptures with wood, styrofoam, cardboard, and paper.
16. Discuss the lines of a human model and draw the person.
17. Discuss physical characteristics of animate and inanimate objects.
18. Touch various objects and classify them as to hardness, smoothness, softness, roughness, and bumpiness.
19. Display creations at school and at home.

Materials and Supplies

easles	wallpaper samples
paints, tempera & finger	smocks
water colors	orange juice cans
brushes, various sizes	drying rack
clay, modeling & pottery	pipe cleaners
crayons	crapas
magic markers	paper clips & brads

blunt scissors	stapler & staples
fabric scraps	food coloring
paste & glue	wood scraps
tape; masking, scotch, colored	pencils; lead, colored
yarn	paper bags
socks	rulers
colored chalk	magazines & catalogs
junk for collages	charcoal
corrugated cardboard	instant parier-mache'
q-tips	sponges
spools	liquid starch
plaster of paris	toothbrushes
string	screen
styrofoam	brayer
stencils	manila paper
newsprint	construction paper
butcher paper	tagboard
finger painting paper	poster board
tissue paper	cellophane paper
tinfoil	wax paper

MUSIC

Goals

1. To develop basic concepts of music
2. To develop basic musical skills
3. To experiment freely in musical activities

4. To experience music for self-expression
5. To release emotions during musical experiences
6. To appreciate and enjoy different types of music
7. To feel successful in musical experiences

Objectives

1. Listen to music with discrimination
2. Identify melodic movement
3. Distinguish between beat and rhythmic pattern of melody
4. Identify obvious changes in dynamics and tempo
5. Identify common orchestral instruments
6. Sing simple songs
7. Sing with accompaniment
8. Play simple rhythm and melody instruments
9. Reproduce melodic fragments on melody instruments
10. Reproduce rhythmic patterns on rhythm instruments
11. Interpret music through body movements
12. Create music with voice and simple instruments
13. Select preferred music

Enabling Activities

1. Listen to music during activity periods
2. Listen to and compare marches with lullabies.
3. Discuss melody in terms of up, down, same, high, and low.
4. March and clap to music simultaneously.

5. Express changes in dynamics and tempo through singing, playing simple instruments, and creating body movements.
6. Listen to orchestral music and classify instruments by tone color.
7. Use visual aids, key words, and phrases to facilitate learning new songs.
8. Learn new songs by echoing phrases.
9. Experiment by changing the tempo and dynamics of songs.
10. Play simple rhythm and melody instruments while singing.
11. Clap, tap, walk, run, and skip to music.
12. Dramatize action songs.
13. Combine movements to indicate even and uneven rhythmic patterns.
14. Create songs by changing the words to a familiar song and by improvising a tune for a poem.
15. Sing animal sounds to a familiar tune.
16. Draw while listening to music.
17. Experiment with bottles filled with graduated amounts of water by tapping the outside and by blowing air inside.
18. Make rhythm instruments in the art center.
19. Invite musicians to discuss their instruments and play them.
20. Create rhythmic chants.

Materials and Supplies

cassette recorder	record player
listening station	records & tapes
melody bells	autoharp
piano	hand organ
accordion	diatonic bells
rhythm sticks	maracas
bells	jingle sticks
tamborines	castanets
cymbals	triangles
drums, bongo & unibongo	sand blocks
gong	hula hoop
balls	bean bags
jump ropes	scarves
crepe paper	fans
ribbons	flags
picture cards	music bingo
musical typewriter	materials for making instruments

BLOCKBUILDINGGoals

1. To improve large and small muscular coordination
2. To find emotional release through dramatic play
3. To use blocks as a means of creative expression

4. To promote concept development
5. To promote social development
6. To enjoy playing with blocks

Objectives

1. Stack blocks
2. Create structures
3. Play roles
4. Cooperate with others
5. Verbalize ideas
6. Plan projects
7. Incorporate concepts of size, shape, number, position, and balance
8. Assume responsibility for cleanup

Enabling Activities

1. Use pictures of constructions to provide a stimulus for building.
2. Create models of streets, paths, and shopping centers.
3. Use puppets, toy animals, and toy people for dramatic play.
4. Following field trips create bridges, roads, boats, and trains.
5. Build simple machines such as pulleys, levers, and inclined planes.

6. Use large scrap lumber to build temporary structures outside.
7. Move large blocks outside for more physical freedom.
8. Dictate stories about constructions.
9. Build roads to show route to a child's house.
10. Construct small scale models with Lincoln logs, tinker toys, legos, and other small building toys.
11. Display pictures, books, and objects to stimulate creativity.

Materials and Supplies

solid wooden blocks	hollow blocks
large scrap lumber	steering wheel
traffic signs	tinker toys
Lincoln logs	legos
large and small wheel toys	toy people & animals
(airplane, truck, train, tractor)	puppets
pictures	books
cassette recorder	blank tapes
storage shelves	area rug
interlocking blocks	

CREATIVE DRAMATICS

Goals

1. To promote social development

2. To promote concept development
3. To promote motor coordination
4. To find emotional release through dramatic play
5. To enjoy dramatic play

Objectives

1. Interact socially with members of a group
2. Share materials and ideas
3. Listen when others talk
4. Develop friendships
5. Practice social amenities
6. Role play a given situation
7. Imitate characters from stories
8. Pantomime situations
9. Manipulate puppets
10. Identify roles of family members
11. Identify roles of community members
12. Identify feelings
13. Express feelings
14. Assume responsibility for cleanup

Enabling Activities

1. Role play situations involving family and community members.
2. Role play holiday situations.
3. Dramatize a familiar story.

4. Pantomime situations such as changing a baby's diaper, taking out the trash, driving a car, eating, sleeping, and bathing.
5. Use puppets to role play situations involved in making friends.
6. Express emotions through a puppet's actions.
7. Plan a pretend party.
8. Cook and serve popcorn.
9. Play the role suggested by a hat.
10. Play with a small group of children.
11. Share cleaning responsibilities after playing.
12. Tape children playing; then, listen and discuss their voices.
13. Change the center to resemble a post office, store, library, or restaurant.
14. Launder the dress-up clothes and hang to dry.

Materials and Supplies

cupboard	stove
sink	refrigerator
ironing board, iron	telephones
dolls (multi-ethnic)	doll carriage
doll bed	clothes line
broom	mop
dustpan	cooking utensils
small table and chairs	dress-up clothes
shoes	hats

puppets, theatre	dishes
rolling pins	silverware
mirror	cookie cutters
hot plate	paper bags
empty carton & food boxes	rocking chair
suitcase	play mate puppets
area rug	

SAND AND WATER

Goals

1. To promote eye-hand coordination
2. To develop small and large muscles
3. To develop socialization skills
4. To experience tactile sensations
5. To promote concept development
6. To enjoy playing in sand and water

Objectives

1. Pour sand and water from one container to another
2. Obey rules
3. Cooperate with others
4. Describe tactile sensations of sand and water
5. Investigate problems
6. Discover equivalences
7. Classify objects which float and sink
8. Classify objects which are absorbent and nonabsorbent

9. Measure sand and water
10. Dig and pile sand to create structures

Enabling Activities

1. Use funnels, pill bottles, and standard measuring devices to measure sand and water and to fill other containers.
2. Discuss physical properties of sand and water.
3. Divide a pan of water into racing lanes and blow boats using straws.
4. Mix primary color with water to discover how secondary colors are made.
5. Use brushes and sponges with water to draw on the chalkboard, sidewalks, and outside walls.
6. Experiment with objects which sink and float.
7. Experiment with objects which absorb water and those which do not.
8. Use water to wash dishes, clothes, and tables.
9. Use water in imaginary cooking.
10. Answer what, when, why, and how questions about activities.
11. Dig sand with spoons, cups, sticks, and shovels. to build structures.
12. Form letters, numerals, and pictures in sand.
13. Bathe dolls.
14. Compare weight of wet sand to dry sand.

15. Collect rain on different days, then measure and compare.

16. Investigate questions such as:

What does water do to tissues, beans, and sugar?

How fast does water flow through a funnel?

Materials and Objectives

sand and water table with top	rolling pin
sand utensils	shells & stones
sailboats	wheelbarrow
plastic containers with tops	dump truck
plastic dishes	cakes of soap
measuring spoons and containers	liquid soap
eggbeater	bubble pipes
straws	food coloring
corks & sponges	dry tempera paint
plastic eyedroppers	pieces of wood
funnels (different sizes)	styrofoam
sieves (variety)	objects to sink & float

COOKING AND SEWING

Goals

1. To interact with adults
2. To experience measuring for a purpose
3. To discover a purpose for reading
4. To learn that cooking and sewing are necessities

5. To develop eye-hand coordination
6. To promote social development
7. To promote concept development
8. To release emotions
9. To feel successful

Objectives

1. Listen as recipes and sewing direction are read
2. Measure ingredients
3. Cook different foods
4. Employ new vocabulary words
5. Obey safety rules
6. Share materials and ideas
7. Manipulate a needle and thread
8. Identify reasons for cooking and sewing
9. Plan projects with others
10. Complete initiated projects
11. Assume responsibility for cleanup
12. Value cooking and sewing projects

Enabling Activities

1. Cook jello, popcorn, applesauce, peanut butter, milkshakes, salads, and no bake cookies.
2. Plan, prepare, and serve party foods.
3. Write recipes on sentence chart.
4. Discuss reasons for cooking and sewing.
5. Make simple pillows.

6. Use simple patterns for cutting fabric.
7. String popcorn and styrofoam.
8. Use yarn to outline pictures, letters, numerals, names, and designs on burlap.
9. Ravel the edges of burlap to create various shapes.
10. Make books out of cloth and sew yarn pictures in them.
11. Use cardboard to make sewing cards by punching holes along the outline of a picture or design.
12. Number holes which have punched in a piece of cardboard so that children will be able to sew from dot-to-dot.
13. Participate in cleanup activities.
14. Create cooking and sewing projects for gifts.

Materials and Supplies

fabric, burlap & felt	simple patterns
needles	thread & yarn
shoe strings	embroidery hoops
pins	buttons
beads	thimble
pot holders	dish pan
rolling pin	cookie cutters
measuring spoons & cups	minute timer
mixing bowls & spoons	hot plate
saucepans	wooden spoons & spatulas

eggbeater

knives

aprons

cookbooks

charts of recipes

foil & wax paper

WOODWORKING

Goals

1. To improve eye-hand coordination
2. To promote concept development
3. To develop small and large muscles
4. To develop socialization skills
5. To interact with adults
6. To find emotional release
7. To feel successful

Objectives

1. Manipulate tools
2. Employ new vocabulary
3. Create with wood
4. Solve problems
5. Obey safety rules
6. Identify a need for woodworking
7. Complete initiated activities
8. Share materials and ideas
9. Enjoy woodworking
10. Assume responsibility for cleanup

Enabling Activities

1. Plan a field trip to a construction site.
2. Use a large tree stump or a 4x4 post for hammering exploration.
3. Invite a carpenter to discuss the safety rules of woodworking and demonstrate how to use tools to make simple projects.
4. Provide task cards of project ideas.
5. Create a design by pounding nails partially into a piece of wood and winding wire, yarn, or string around the nails in an interesting pattern.
6. Create a wire sculpture by twisting wire around a nail that has been partially hammered into wood and stringing objects with holes on the wire.
7. Hammer nails into the outline of a picture which has been drawn on the wood.
8. Use nails, toothpicks, or golf tees to follow the outline of a picture on styrofoam.
9. Glue wood, styrofoam, or cardboard together to create a design.
10. Experiment with sawing wood.
11. Rub sawed edges with sandpaper.
12. Experiment with putting in screws with a screwdriver.
13. Nail objects onto the pounding surface.

Materials and Supplies

hammer	hacksaw
copling saw	vise
screwdriver	screws
nails (roofing)	sandpaper
file	hand drill
ruler & pencil	wood scraps
carpenter's apron	painter's hats
brace & bits	t-square
miter box	tool cabinet
monkey wrench	sawhorses
nuts & bolts	locks
margerine cups	yardstick
tape measure	paint, tempera & acrylic
brushes	workbench
wire	bottle caps
straws	sponges
plastic lids	aluminum foil
spools	fabric scraps
beads	yarn & string
buttons	carpet scraps
cardboard	styrofoam
feathers	flowers
leaves	weeds
paper rolls	baking cups
paper cups	golf tees & toothpicks

MOVEMENTGoals

1. To promote small and large muscle development
2. To improve eye-hand/foot coordination
3. To discover various ways the body can move
4. To discover where the body can move
5. To discover how the body can move
6. To promote concept development
7. To release emotions
8. To feel successful
9. To improve problem solving skills

Objectives

1. Differentiate between personal and general space
2. Demonstrate movement in different directions
3. Demonstrate movement on different levels
4. Demonstrate movement in different paths
5. Demonstrate time in movement
6. Demonstrate force in movement
7. Demonstrate flow in movement
8. Demonstrate tenseness and relaxation in movement
9. Demonstrate relationships in movement
10. Demonstrate various body shapes
11. Demonstrate movement of various body parts
12. Demonstrate locomotor movements

13. Demonstrate nonlocomotor movements
14. Demonstrate movement with manipulatives
15. Demonstrate movement in rhythmic activities

Enabling Activities

1. Find personal space by stretching as far as possible in all directions.
2. Find general space by moving in the room or designated area without touching anyone.
3. Move forward, backward, sideward, diagonally, up, and down in both personal and general space.
4. Move on high, medium, and low levels.
5. Move in straight, curved, twisted, and zigzag paths.
6. Move fast, faster, and fastest.
7. Move lightly and heavily.
8. Combine movements smoothly.
9. Alternate tensed and relaxed movements.
10. Move body parts and/or manipulatives to demonstrate relationships.
11. Create different body shapes.
12. Move various body parts in different ways.
13. Move by running, walking, crawling, rolling, hopping, skipping, jumping, leaping, climbing, sliding, pushing, pulling, and galloping on different levels in different directions.

14. Move in personal space by swinging, swaying, twisting, turning, curling, and stretching.
15. Manipulate equipment by throwing, catching, kicking, and striking.
16. Move to the beat of music.

Materials and Supplies

record player	records
balance board	balance beam
balls	beanbags
ropes	hoops
tires	ladders
wooden steps	slide
climbing apparatus	climbing tree
large sewer pipes	low turning bars
riding toys	wheelbarrows
sand toys	swings
planks	water hose
building blocks	rubber bands
wands	tin cans

Summary

The purpose of this project was to develop an open education kindergarten curriculum guide utilizing learning centers. In chapter one, the significance of early childhood education and the rationale for open education were

discussed. A review of the relevant literature revealed a dynamic trend to include young children in public education and to provide for optimal development of the whole child: socially, emotionally, intellectually, and physically. The literature concerning open education indicated the significance of development of the whole child; therefore, open education provides an appropriate philosophy upon which to base development of a kindergarten curriculum guide.

The second chapter of this project discussed literature relevant to learning centers. Open education, the philosophy upon which the learning center approach is based, was discussed first. This was followed by a review of definitions, purposes, characteristics, advantages and disadvantages, and roles of learning centers. A discussion of approaches to implementing learning centers and suggestions for implementing them followed next. The chapter concluded with a discussion of roles of the teacher and children.

Chapter three was concerned with planning the kindergarten environment and curriculum. Specific aspects of the physical environment, materials, classroom management, record keeping and evaluation, and parental involvement were discussed. This was followed by a discussion of the following learning centers with respect to goals, objectives, enabling activities, and materials and supplies: math, science, language arts, social studies, art, music,

blockbuilding, dramatic play, sand and water, woodworking, and movement.

In conclusion, the successful implementation of learning centers in kindergarten appears to be a result of the implementing teacher's attitude toward open education. The attitude of openness is vital in order to successfully develop and implement learning centers.

It is suggested that further research and curriculum development be done in the area of learning centers. More research is needed on the effectiveness of learning centers in kindergarten and other levels. Additional curriculum development is especially needed for grade one.

It is also recommended that the person developing a similar curriculum guide utilizing learning centers be involved in implementing them prior to or during development of such a curriculum guide.

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